



UNIVERSITY OF SWAZILAND

2nd SEM. 2015/2016

FINAL EXAMINATION PAPER

PROGRAMME: B.Sc. ANIMAL SCIENCE YEAR 3 / B.Sc. ANIMAL SCIENCE (DAIRY) YEAR 3

COURSE CODE: AS 308

TITLE OF PAPER: RESEARCH METHODS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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QUESTION 1

(a) Define the following terms:

- (i) Research (2)
- (ii) Research proposal (2)
- (iii) Research design (2)
- (iv) Alternative hypothesis (2)
- (v) Data (2)
- (vi) Sample (2)
- (vii) Problem statement (2)
- (viii) Independent variable (2)
- (ix) Statistical analysis (2)
- (x) Quantitative research (2)

(b) Give any five (5) reasons for carrying out research (5) **(25 Marks)**

QUESTION 2

(a) Briefly explain the concept of **literature review** and its significance in research (5)

(b) List and explain any ten (10) characteristics of research (20)

(25 Marks)

QUESTION 3

Discuss the types of research.

(25 Marks)

QUESTION 4

Read the research topic below and answer the questions that follow:

“Effects of Dietary Supplementation with Three Graded Levels of Marula (*Sclerocarya birrea*) Seed Cake with or without Synthetic DL-Methionine on Body Weight Gain, Feed Intake, Feed Conversion Efficiency and Milk Yield and Composition in Dairy Goats”

- (a) What would be the hypothesis / hypotheses for such a study? (2)
- (b) What would be its main or general objective? (2)
- (c) **Name** and **illustrate** the experimental design you think would be most appropriate for the study, including the **number of experimental units** that you believe would be scientifically reasonable (16)
- (d) What would be the dependent variables in the study? (5)

(25 Marks)

QUESTION 5

Below is a research topic of a Final Year student in the Department of Animal Science at the University of Swaziland. The student is concerned about Swaziland’s inability to produce sufficient milk and milk products in order to feed its rapidly growing human population, especially on Swazi Nation Land. Read the research topic and answer the questions that follow:

“Effects of Crossbreeding Indigenous Nguni with Exotic Holstein-Friesian Cattle on Milk Production and Internal Parasite Resistance in their Progeny”

Write a **comprehensive synopsis** of a research proposal for this study, indicating the sub-headings or activities that would need to be covered under each section of the proposal. For the literature review section, write a **broad** synopsis of the aspects of the literature that you believe would need to be covered.

(25 Marks)